REMARKS

Claims 1, 3, 5, and 6 are pending in the present application. Claim 1 has been amended herein. No new matter has been introduced by way of the amendment.

Preliminarily, Applicants submit herewith a new unexecuted declaration identifying Inventor Sepulveda's correct address. The declaration also sets forth a corrected U.S. Provisional Application Serial No. 60/129,805, having a filing date of April 16, 1999, of which the present application claims benefit. (*See* Response dated June 20, 2001.) The executed declaration will be submitted as soon as it becomes available.

Applicants note with appreciation the grant of the request for a Continued Prosecution Application under 37 C.F.R. § 1.53 (d).

I. Claims 1, 3, 5, and 6 recite subject matter disclosed by the application as filed.

Claims 1, 3, 5, and 6 stand rejected under 35 U.S.C. § 112, first paragraph for allegedly containing new matter. Applicants traverse. Nevertheless, to advance prosecution of the application, claim 1 has been amended to delete the phrase "wherein said period of time is at least one hour." Accordingly, Applicants request withdrawal of the rejection.

II. Claims 1, 3, 5, and 6 are patentable over Gallimore et al.

Claims 1, 3, 5, and 6 stand rejected under 35 U.S.C. § 102 (b) as being allegedly anticipated by Gallimore et al. Applicants respectfully traverse.

Applicants first note that Gallimore et al. cannot be asserted as prior art under 35 U.S.C. § 102 (b) against the present application. A reference must be published more than one year prior to the date of application for patent in order to bar a patent under section 102 (b). Gallimore et al. was published May 4, 1998, while the present application is entitled to the benefit of an April 16, 1999 filing date of U.S Provisional

Serial No. 60/129,805. Accordingly, Gallimore et al. cannot preclude patentability of the present invention under 35 U.S.C. § 102 (b).

Moreover, Gallimore et al. is not an anticipatory reference. To anticipate a claim, a prior art reference must teach, either expressly or inherently, each and every element of the claim. *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

Claims 1, 3, 5, and 6 are directed to methods for the purification of antigen specific T cells by contacting a MHC class I protein-fluorescent protein *fusion* molecule or a *radiolabeled* MHC class I protein, bound to a specific antigen with a population of T cells, incubating the MHC class I protein bound to the specific antigen together with the population of T cells for a time period sufficient for the T cells to internalize the MHC class I protein from the T cell surface, and identifying T cells that have internalized the MHC class I protein-fluorescent protein fusion molecule or the radiolabeled MHC class I protein.

An example of a MHC class I protein-fluorescent protein fusion molecule recited in the present claims is the L^d-GFP molecule. (*See, e.g.*, Specification as originally filed at page 4, lines 12-27.) An example of a radiolabeled MHC class I protein recited in the present claims is ^{35}S-labeled MHC class I protein. (*See, e.g.*, Specification as originally filed at page 7, lines 16-29; Fig. 2C.) The multimeric complexes internalized by the T cells in the methods recited in the claims include directly labeled MHC class I protein bound to the antigen, as distinguished from a labeled molecule bound to a MHC class I protein bound in turn to antigen.

In contrast to the MHC class I protein-fluorescent protein fusion molecule or radiolabeled MHC class I protein recited in the solicited claims, Gallimore et al. describe the use of class I-peptide *complexes* containing mouse class I heavy chain D^b *bound to* the LCMV peptide epitope glycoprotein (GP)33-41 and biotinylated human ß2 microglobulin ($ß_2M$). The class I-peptide complexes are fluorescence-labeled using phycoerythrin-labeled neutravidin, which binds to the biotinylated $ß_2M$ to form a tetrameric complex. (Gallimore et al., page 1384, column 1.) There is no disclosure whatsoever by Gallimore et al. of a MHC class I protein-fluorescent protein fusion

molecule or radiolabeled MHC class I protein. Accordingly, Gallimore et al. cannot anticipate claims 1, 3, 5, and 6.

Applicants also traverse the assertion of inherency of internalization of the protein complexes recited in the present claims. Like Gallimore et al., Whelan et al. fail to disclose the use of a MHC class I protein-fluorescent protein fusion molecule or a radiolabeled MHC class I protein. Whelan et al. teach internalization of complexes of the extracellular domain of MHC class I heavy chain containing the BirA recognition site, $ß_2M$, biotinylated BirA enzyme, and phycoerythrin- or FITC-labeled avidin bound to antigen. (*See* Whelan et al. at page 4342, column 2 to page 4343, column 1.) The MHC class I protein complex of Whelan et al. does not include a MHC class I protein-fluorescent protein fusion molecule or a radiolabeled MHC-class I protein as recited in the present claims, and is a completely different multimeric complex than that recited by Gallimore et al. Accordingly, Whelan et al. fail to establish the inherency of internalization of either the protein complexes of claims 1, 3, 5, and 6 or the multimeric complexes of Gallimore et al.

Accordingly, Applicants request reconsideration and withdrawal of the rejection.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this application are in condition for allowance. The issuance of a Notice of Allowance at an early date is respectfully requested

If the Examiner believes a telephone conference would expedite prosecution of this application, please contact the undersigned at 215-557-5908.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."** Also attached hereto is an unexecuted Inventor Declaration.

Date: September 19, 2002

Respectfully submitted,

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Attachments

Version with Markings to Show Changes Made
Unexecuted Inventor Declaration
Request for three-month extension of time and appropriate fee

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Please amend the application as follows:

IN THE CLAIMS:
Please amend claim 1 to read as follows:

1. (Three times amended) A method for the purification of antigen specific T cells, comprising:

a) contacting a MHC class I protein-fluorescent protein fusion molecule or a radiolabeled MHC class I protein, bound to a specific antigen with a population of T cells;

b) incubating the MHC class I protein bound to the specific antigen together with the population of T cells for a period of time sufficient for the T cells to internalize the MHC class I protein from the T cell surface [wherein said period of time is at least one hour]; and

c) identifying the T cells that have internalized the MHC class I protein-fluorescent protein fusion molecule or the radiolabeled MHC class I protein.